

REMARKS

This amendment is being filed along with a Request for Continued Examination (RCE) application in response to the final Office Action having a mailing date of February 9, 2004 and in response to the Interview Summary having a mailing date of April 14, 2004. Claims 1-2, 11, 27, 36, and 44-58 are amended herein. More specifically, independent claims 1, 11, 27, 36, 49, and 54 are amended to recite certain distinctive features. No new matter has been added. With this amendment, claims 1-5, 7-14, 16-18, and 27-58 are pending in the application.

Substance of the Interview:

The applicants thank the Examiner for taking the time to conduct a telephone interview with the undersigned attorney on April 13, 2004. During that interview, the undersigned attorney and the Examiner discussed claims 1, 11, 27, 36, 49, and 54 in view of certain embodiments, and also discussed differences between the claims and the cited references of Lyons (U.S. Patent No. 5,936,968) and Aharoni (U.S. Patent No. 6,014, 694). In particular, the undersigned attorney explained that one embodiment of the present invention provides multiple output streams (each having different characteristics) that are generated from a single input video stream, at a server end for example. The multiple output streams are then transmitted to respective different client devices, wherein the characteristics of each output stream are optimized for the respective client device that is to receive the output stream. The particular output stream being transmitted to a client device can be dynamically changed during transmission, if needed, in response to changing bandwidth conditions and/or changing client device characteristics.

During the interview, the Examiner suggested that the term “output” be added to the claims to better distinguish over the cited references. The claims already recited the term “multiple streams” or something to that effect, which is believed to already distinguish over the art, as will be explained below. However, the Examiner felt that the term “output” would add further clarification. In concluding the interview, the Examiner explained that such amendments to the claims would likely not be entered, thereby necessitating the filing of this RCE to have the amendments entered and considered.

Explanation of embodiments, cited references, and claim amendments:

In the final Office Action, the claims were rejected based on Lyons (U.S. Patent No. 5,936,968) and/or Aharoni (U.S. Patent No. 6,014, 694), either singly or in combination. For the reasons set forth below, the applicants respectfully disagree with these rejections, and request that the pending claims be allowed.

A disclosed embodiment will now be discussed in comparison to the applied references. Of course, the discussion of the disclosed embodiment, and the discussion of the differences between the disclosed embodiment and subject matter described in the applied references, do not define the scope or interpretation of any of the claims. Instead, such discussed differences are intended to merely help the Examiner appreciate important claim distinctions discussed thereafter.

According to one embodiment, a single input video stream having a first format is transformed into multiple output video streams having second formats or other characteristics that can be different from the input video stream. This transformation is performed because there are potentially many different client devices that can respectively receive output video streams and which are not necessarily compatible or optimized for receiving the format of the input video stream. Therefore, the transformation of the input video stream into the multiple output video streams allows particular individual output video streams to be tailored or otherwise optimized to each client device. Moreover according to an embodiment, the particular output video stream to a client device can be changed during transmission, if dynamically changing bandwidth conditions and/or client device conditions necessitate that a different, more optimum output video stream be selected for that client device.

The Examiner has cited Lyons to reject the applicants' claims. However, a closer reading of Lyons (and as discussed during the telephone interview) reveals that Lyons does not disclose, teach, or suggest at least some of the features of the applicants' embodiment(s). For example, column 3, lines 56-63 of Lyons describes program sources that generate data streams. These data streams are then multiplexed (spliced) into a single bit stream, e.g., an output stream (emphasis added). The output stream is then encoded to produce an output transport stream. *See also* the multiplexer 122 in Figure 2 of Lyons.

Accordingly, it is clear that Lyons does not produce multiple output streams, each of which has different characteristics that are tailored to particular client devices. Rather, Lyons clearly produces a single bit stream, in which data streams are multiplexed. In effect therefore, every client device of Lyons will receive the same output stream and will need to select the particular data in that output stream that it desires to display.

The Examiner has also cited Aharoni against the applicants' claims. However, Aharoni also does not generate multiple output streams that have characteristics tailored to the particular client devices. Rather, Aharoni also produces a single output stream. The single output stream has different levels of data representing varying degrees of quality. *See, e.g.*, the Abstract and Figures 5-7 of Aharoni. As another example, Figure 8 of Aharoni shows a single video stream. The single video stream has different frames with different quality levels. Thus and in a manner similar to Lyons, each client device of Aharoni will receive the same video stream and select the particular quality level that is desired.

With an embodiment of the applicants' invention, a multiplexer 122 is not used, since multiple transcoders are used to generate multiple output streams that can be separately sent to respective client devices.

The independent claims 1, 11, 27, 36, 49, and 54 already recite, in some manner, multiple video streams or multiple video signals. As described above, these recitations distinguish over Lyons and Aharoni because these references implement only a single video stream. Lyons multiplexes several video signals into a single video stream. Aharoni sends a single video stream having different levels of quality encoded thereon.

However, to facilitate prosecution and in accordance with the amendments discussed with the Examiner during the telephone interview, the independent claims 1, 11, 27, 36, 49, and 54 are amended to recite multiple --output-- video streams or multiple --output-- video signals. With these amendments, claims 1, 11, 27, 36, 49, and 54 are now allowable over the cited references.

Additional amendments are made to claim 11 to recite that an optimized stream can be provided in response to a change in a combination of a bandwidth condition, device characteristic, and user preference. Such an optimized stream associated with the recited

combination is not disclosed, taught, or suggested by any of the references. Therefore, claim 11 is further allowable.

The other independent claims include other amendments that clarify the subject matter recited therein. The various dependent claims are amended to make their language consistent with the amended independent claims.

An Information Disclosure Statement, form PTO-1449, and copies of the listed references are included with this amendment. The claims in the present application are distinctive over all of these references. The Examiner is kindly requested to consider these references and provide confirmation of their consideration with the next communication.

Conclusion:

Overall, none of the references singly or in any motivated combination disclose, teach, or suggest what is recited in the independent claims. Thus, given the above amendments and accompanying remarks, the independent claims are now in condition for allowance. The dependent claims that depend directly or indirectly on these independent claims are likewise allowable based on at least the same reasons and based on the recitations contained in each dependent claim.

If the undersigned attorney has overlooked a teaching in any of the cited references that is relevant to the allowability of the claims, the Examiner is requested to specifically point out where such teaching may be found. Further, if there are any informalities or questions that can be addressed via telephone, the Examiner is encouraged to contact the undersigned attorney at (206) 622-4900.

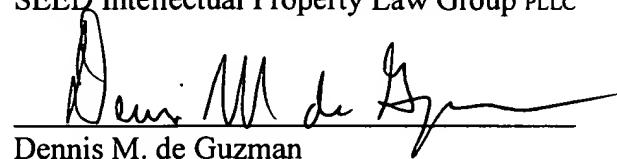
The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

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All of the claims remaining in the application are now clearly allowable.
Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC



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Enclosure:

Postcard
Request for Continued Examination
Third Supplemental Information Disclosure Statement

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